

Title (en)

DEVICE, SYSTEM AND METHOD FOR DETERMINING THE POSITION OF STENTS IN AN IMAGE OF VASCULATURE STRUCTURE

Title (de)

VORRICHTUNG, SYSTEM UND VERFAHREN ZUR POSITIONSBESTIMMUNG VON STENTS IN EINEM BILD EINER GEFÄSSSTRUKTUR

Title (fr)

DISPOSITIF, SYSTÈME ET PROCÉDÉ DE DÉTERMINATION DE LA POSITION AUDIOPROTHÈSES VASCULAIRES (STENTS) DANS UNE IMAGE VASCULAIRE

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Application

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Abstract (en)

[origin: EP3522116A1] The present invention relates to a device (10) for determining the position of stents (34, 36) in an image of vasculature structure, the device (10) comprising: an input unit (12); a processing unit (14); and an output unit (16); wherein the input unit (12) is configured to receive a sequence of images (24) of a vasculature structure (38) comprising at least one vessel branch (44, 46); wherein the processing unit (14) is configured to: detect positions of at least two markers (26, 28, 30, 32) for identifying a stent position (50, 52) in at least one of the images (24); detect at least one path indicator (64, 66, 74, 76) for the at least one vessel branch (44, 46) in at least one of the images (24) of the vasculature structure (38) at least for vessel regions in which the positions of the markers (26, 28, 30, 32) are detected; associate the at least two markers (26, 28, 30, 32) to the at least one path indicator (64, 66, 74, 76) based on the detected positions of the markers (26, 28, 30, 32) and the location of the at least one path indicator (64, 66, 74, 76); assign markers (26, 28, 30, 32) which are associated to the same path indicator (64, 66, 74, 76) to a marker group to indicate a position (50, 52) of at least one stent (34, 36) in the vasculature structure (38); and wherein the output unit (16) is configured to provide output data indicative of the positions of the markers (26, 28, 30, 32) of the marker group. The invention provides a device and a method that improve the determination of the position of stents in complicated situations.

IPC 8 full level

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